

NPDES
INSPECTION REPORT

DRINKING WATER TREATMENT FACILITY
CITY OF LEWISTON
LEWISTON, IDAHO

December 15, 2011

Prepared by:
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Lewiston Regional Office
Idaho Department of Environmental Quality

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(Unless otherwise noted, all details in this inspection report were obtained from facility records, observations, and conversations with Mr. William Ingram II, Water Plant Supervisor and Mr. David Six, Water and Wastewater Supervisor)

I. Facility Information

Facility Name:	City of Lewiston Drinking Water Treatment Plant (Facility)
Facility Type:	Drinking Water Treatment Plant
Facility Location:	2801 Railroad Avenue, Lewiston, Idaho 83501 Latitude: 46° 25' 15' N Longitude: 116° 59' 24" W
Mailing Address:	2801 Railroad Avenue Lewiston, ID 83501
Facility Contacts:	David Six, Water and Wastewater Supervisor William Ingram II, Water Plant Supervisor
Facility Numbers:	Cell: (208)791-2035 Fax: (208)750-1924
Permit Number:	ID-002653-1
Permit Status:	Permit became effective on November 1, 2006 and expired on October 31, 2011. On June 21, 2011, a permit reapplication was submitted to EPA by the Permittee.
SIC Code:	4941

II. Inspection Information

Inspection Date/Time:	December 15, 2011 1:18 PM to 2:55 PM
Inspectors:	Jerry Shaffer (Idaho Department of Environmental Quality, Lewiston regional office)
Weather:	Partly cloudy and cool
Purpose:	Determination of compliance with the NPDES Permit and the Clean Water Act

III. Inspection Entry

This was an announced inspection. The operator of the Facility was contacted by phone on December 13, 2011 and the time and date of the inspection was set.

I arrived at City of Lewiston Water Treatment Plant at 1:18 PM on December 15, 2011 and met with Mr. David Six, Water and Wastewater Supervisor and Mr. William Ingram II, Water Plant Supervisor. I discussed the purpose of the visit with Mr. Six and Mr. Ingram prior to the inspection. I was not denied access to the Facility.

I was accompanied throughout this inspection by both Mr. Six and Mr. Ingram.

IV. Inspection Chronology

On December 15, 2011, the inspection began with an entry interview, followed by a file review and tour of the Facility. The Facility tour included an inspection of the treatment unit operations (settling basins) and a review of the sample collection and analytical procedures at the onsite laboratory. As part of the file review, the Facility's quality assurance plan (QAP), the Best Management Practices (BMP) plan, the operations and maintenance (O&M) plan and discharge monitoring reports (DMRs) were reviewed. According to Mr. Ingram, he is the certified operator responsible for sample collection, onsite analysis and filling out the DMRs.

The inspection then concluded with an exit interview where I pointed out the areas of concern I observed during the inspection.

V. Owner and Operator Information

The Facility is currently owned and operated by the City of Lewiston, Idaho.

VI. Background

The permit authorizes the Facility to discharge to the Clearwater River through outfall 001. The Facility has a design flow of 0.55 million gallons per day (MGD).

VII. Waste Management Process

The wastewater collection and treatment system consists of gravity collection from the school complex to an aerated lagoon then to a septic tank, followed by a second lagoon and discharge to a ditch that flows to Grasshopper Creek.

At the time of inspection, all treatment units were operational. See Attachment B for photo documentation of the units.

VIII. Facility Sample Collection and Analyses

The sample collection and analyses duties at the Facility are conducted by Mr. Ingram, who is responsible for sample collection and onsite analysis. Mr. Six is responsible for filling out, signing and submitting the DMRs to EPA.

The parameters analyzed onsite using monitoring equipment include flow and pH.

Biochemical oxygen demand (BOD), total suspended solids (TSS), ammonia, phosphorus, and Escherichia coli (E. coli) are analyzed by an outside laboratory (i.e. Anatek Labs, Inc. in Spokane, Washington).

IX. Areas of Concern

This inspection included a review of the treatment system, the sample collection procedures, and documentation required by the Permit. During the course of this inspection, I observed and identified the following areas of concern:

- A. Quality Assurance Plan (QAP): Part II.A.3 of the Permit states “At a minimum, the QAP must include the following:
- a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.”

The QAP did not contain details on the number of samples, preservation of TTHM samples, and the type and number of quality assurance field samples.

- B. Best Management Practices Plan: Part II.B.1 of the Permit states “Through implementation of the best management practices (BMP) plan, the permittee must prevent or minimize the generation and the potential for the release of pollutants from the facility to the waters of the United States.”

In addition, Parts II.B.4.a and c of the Permit states “The permittee must develop and amend the BMP Plan consistent with the following objectives for the control of pollutants.

- a) The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged at the facility must be minimized by the permittee to the extent feasible by managing each waste stream in the most appropriate manner.

- c) Each facility component or system must be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to waters of the United States due to equipment failure, improper operation, natural phenomena, etc. The examination must include all normal operations and ancillary activities including material storage areas, storm water, in-plant transfer, material handling and process handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage.”

The Permittee stated that they believed that the BMP policy was limited to the direct treatment of the water or the backwash water and not for the facility as a whole. I told the Permittee that I would clarify whether the requirement is based on water treatment practice or for the entire facility. In a discussion with David Domingo after this inspection, Mr. Domingo said that the BMP is for all aspects of the facility including areas that do not specifically pertain to water treatment, including chemical storage areas, equipment storage areas and any other activity that could migrate into the water or offsite.

- C. Records Content: Part III.E.2 of the Permit states “Records of monitoring information must include:
 - 2. the name(s) of the individual(s) who performed the sampling or measurements;”

The sampling/analytical forms used by the Permittee does not designate who collected samples and who analyzed the samples, though the Permittee states that the person listed does both. This is not stated on the sample sheet.

- D. Signatory Requirements (Permit Applications): Part V.E.1 of the Permit states “All permit applications must be signed as follows:
 - a) For a corporation: by a responsible corporate officer.
 - b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
 - c) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.”

The permit application submitted by the City of Lewiston was signed by David Six, who does not meet any of the conditions above.

- E. Signatory Requirements (Reports and other Information): Part V.E.2 of the Permit states “All reports required by the permit and other information requested by EPA or IDEQ must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a) The authorization is made in writing by a person described above;

- b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
- c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement and IDEQ.”

David Six signs the City of Lewiston Water Treatment Plant DMR's but he was unable to produce the required documentation giving him the authority to do so.

X. Additional Observations

- A. The March 2011 DMR was recreated from the laboratory data sheets as a quality assurance check for the reliability of the information contained in the DMR. No errors were found in the data sheets nor in the DMR.

XI. Inspection Sampling

Samples were not collected at the time of this inspection.

Report Completion Date: January 5, 2012

Lead Inspector Signature: Jerry Shaffer, Staff Engineer

ATTACHMENT A

Aerial Photographs

City of Lewiston
Drinking Water Treatment Facility

(December 15, 2011 Inspection)



Location of the City of Lewiston Water Treatment Plant.



City of Lewiston Water Treatment Plant wastewater process locations.

ATTACHMENT B

Photograph Documentation

City of Lewiston
Drinking Water Treatment Facility

(December 15, 2011 Inspection)



December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
Concrete Settling Basin. Looking southeast.



December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
Concrete Settling Basin. Looking south.



December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
Sampling tap on discharge line to the Clearwater River.

NAME: Lewiston, City of ADDRESS: P.O. BOX 617 Lewiston, ID 83501		PERMIT NUMBER: 000551 DISCHARGE NUMBER: 001 A		MINOR (SUBR 04) PLS2 F = FINAL	
FACILITY LOCATION: Lewiston, City of ATTN: Dave Six, Wastewater Systems Manager		MONITORING PERIOD: FROM: YEAR MONTH DAY 11/05/11 TO: YEAR MONTH DAY 11/05/11			
*** NO DISCHARGE					
PARAMETER		QUANTITY OR LOADINGS		QUALITY OR CONCENTRATION	
		AVERAGE	MAXIMUM	MINIMUM	AVERAGE
Temperature, water temp, Centigrade	SAMPLE MEASUREMENT	4	7.6	9.5	DEGREES C
00010 1.0 Effluent Gross	PERMIT REQUIREMENT				
Turbidity	SAMPLE MEASUREMENT	0.9	0.9	0.9	NTU
00070 1.0 Effluent Gross	PERMIT REQUIREMENT				
pH	SAMPLE MEASUREMENT	7.3	7.4	7.5	SU
30405 1.0 Effluent Gross	PERMIT REQUIREMENT				
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	1.5	1.5	1.7	MG/L
30330 1.0 Effluent Gross	PERMIT REQUIREMENT				
FLOW FROM BACKWASHES	SAMPLE MEASUREMENT	0.072	0.248	0.248	MGD
50050 1.0 Effluent Gross	PERMIT REQUIREMENT				
Chlorine, total residual	SAMPLE MEASUREMENT	0.1	0.15	0.1	MG/L
50090 1.0 Effluent Gross	PERMIT REQUIREMENT				
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		DAVE SIX, WATER/WASTEWATER SYSTEMS MANAGER		TELEPHONE: 208-743-7461	
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE	
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) MONITORING LOCATION "W" IS FOR EFFLUENT					

December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
March 2011 DMR.

FILTER BACKWASH GRIT PUMPS									
Month:		March - 2011							
Date	Pump #1 South				Pump #2 North				Total Gallons For Day
	Hrs. Start	Hrs. Stop	Hours	Gallons	Hrs. Start	Hrs. Stop	Hours	Gallons	
1	4856.2	4856.2	0.0	0	2102.8	2103.8	1.0	72,900	72,900
2	4856.2	4857.2	1.0	72,900	2103.8	2103.8	0.0	0	72,900
3	4857.2	4858.2	1.0	72,900	2103.8	2104.5	0.7	51,030	123,930
4	4858.2	4858.2	0.0	0	2104.5	2104.5	0.0	0	0
5	4858.2	4858.2	0.0	0	2104.5	2104.5	0.0	0	0
6	4858.2	4858.2	0.0	0	2104.5	2104.5	0.0	0	0
7	4858.2	4858.2	0.0	0	2104.5	2105.9	1.4	102,060	102,060
8	4858.2	4859.2	1.0	72,900	2105.9	2106.6	0.7	51,030	123,930
9	4859.2	4859.2	0.0	0	2106.6	2107.6	1.0	72,900	72,900
10	4859.2	4860.2	1.0	72,900	2107.6	2107.6	0.0	0	72,900
11	4860.2	4861.4	1.2	87,480	2107.6	2107.6	0.0	0	87,480
12	4861.4	4862.3	0.9	65,610	2107.6	2107.6	0.0	0	65,610
13	4862.3	4862.3	0.0	0	2107.6	2107.6	0.0	0	0
14	4862.3	4862.3	0.0	0	2107.6	2107.6	0.0	0	0
15	4862.3	4862.3	0.0	0	2107.6	2107.6	0.0	0	0
16	4862.3	4862.3	0.0	0	2107.6	2107.6	0.0	0	0
17	4862.3	4864.3	2.0	145,800	2107.6	2109.0	1.4	102,060	247,860
18	4864.3	4865.4	1.1	80,190	2109.0	2109.0	0.0	0	80,190
19	4865.4	4865.4	0.0	0	2109.0	2110.1	1.1	80,190	80,190
20	4865.4	4866.6	1.2	87,480	2110.1	2110.1	0.0	0	87,480
21	4866.6	4866.6	0.0	0	2110.1	2111.6	1.5	109,350	109,350
22	4866.6	4866.6	0.0	0	2111.6	2112.6	1.0	72,900	72,900
23	4866.6	4867.2	0.6	43,740	2112.6	2113.9	1.3	94,770	138,510
24	4867.2	4868.6	1.4	102,060	2113.9	2113.9	0.0	0	102,060
25	4868.6	4869.6	1.0	72,900	2113.9	2113.9	0.0	0	72,900
26	4869.6	4871.1	1.5	109,350	2113.9	2113.9	0.0	0	109,350
27	4871.1	4872.2	1.1	80,190	2113.9	2115.2	1.3	94,770	174,960
28	4872.2	4872.2	0.0	0	2115.2	2116.5	1.3	94,770	94,770
29	4872.2	4872.2	0.0	0	2116.5	2116.5	0.0	0	0
30	4872.2	4872.2	0.0	0	2116.5	2117.6	1.1	80,190	80,190
31	4872.2	4872.2	0.0	0	2117.6	2117.6	0.0	0	0
Grand Totals:				16.0	1,166,400.0		14.8	1,078,920.0	2,245,320.0

Note: November 2nd and 4th high hours due to sedimentation basin cleaning. Water was pumped to the drying bed not the river.

December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
Daily Operator Log for Filter Backwash Grit Pumps.

AIR COMPRESSORS / GRIT PUMPS: TOTAL HOURS

Month: March Year: 2011

Air Compressors					Grit Pumps					Initials	Date
Pump #1: NORTH		Pump #2: SOUTH		Pump #1: SOUTH		Pump #2: NORTH					
Date	End of Day Hrs.	Month's Starting Hr. Reading	Total Daily Hrs.	End of Day Hrs.	Month's Starting Hr. Reading	End of Day Hrs.	Month's Starting Hr. Reading	Total Daily Hrs.			
1	3594.6	4251.9		4352.7	4856.2	2103.8					
2	3595.6			4353.7	4861.2	2103.8					
3	3597.6			4355.7	4858.2	2104.5					
4	3598.9			4357.1	4858.2	2104.5					
5	3601.2			4358.5	4858.2	2104.5					
6	3605.8			4358.5	4858.2	2104.5					
7	3612.1			4358.5	4858.2	2104.5					
8	3618.4			4358.5	4858.2	2104.5					
9	3622.5			4358.5	4858.2	2104.5					
10	3627.6			4358.5	4858.2	2104.5					
11	3638.7			4358.5	4858.2	2104.5					
12	3640.0			4358.5	4858.2	2104.5					
13	3641.3			4358.5	4858.2	2104.5					
14	3643.0			4358.5	4858.2	2104.5					
15	3643.5			4358.5	4858.2	2104.5					
16	3644.4			4358.5	4858.2	2104.5					
17	3645.7			4358.5	4858.2	2104.5					
18	3648.2			4358.5	4858.2	2104.5					
19	3650.2			4358.5	4858.2	2104.5					
20	3653.4			4358.5	4858.2	2104.5					
21	3656.3			4358.5	4858.2	2104.5					
22	3658.5			4358.5	4858.2	2104.5					
23	3662.1			4358.5	4858.2	2104.5					
24	3663.2			4358.5	4858.2	2104.5					
25	3664.3			4358.5	4858.2	2104.5					
26	3665.2			4358.5	4858.2	2104.5					
27	3666.3			4358.5	4858.2	2104.5					
28	3667.2			4358.5	4858.2	2104.5					
29	3667.2			4358.5	4858.2	2104.5					
30	3668.8			4358.5	4858.2	2104.5					
31	3669.3			4358.5	4858.2	2104.5					

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(FORM REVISED FEB 2011 - 88) (FORM REVISED FEB 2011 - 29)

December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
Daily Operator Logs for Air Compressors/Grit Pumps.

**Lewiston Water Treatment Plant
Grit Chamber Discharge Log**

Year: 2011 Month: March

Weekly Samples

	Week 1	Week 2	Week 3	Week 4	Week 5	If Necessary
Date (mm/dd/yyyy)	3-2-11	3-8-11	3-17-11	3-22-11	3-29-11	
Time (24 hr)	0725	0840	0755	0845	0815	
Analyst	GT	GT	GT	KHR	CT	hgo
Outfall Flow (gallons/day)						
pH	7.34	7.48	7.55	7.37	7.31	7.41
Chlorine (mg/l)	0.2	0.03	0.07	0.14	0.17	0.12
Turbidity (NTU)	—	0.90	—	—	—	—
Temperature (°C)	7.0°C	8.0°C	4.0°C	9.5°C	9.5°C	7.6

Monthly Sample

Date: 3-8

Start Time:

Finish Time:

of subsamples in Composite:

Analyst:

Total Suspended Solids (mg/L): 1.7

$1.7 \times 116 \times 8.34 = 1.6$

$0.2 \times 0.73 \times 8.34 = 0.12$

$0.03 \times 1.16 \times 8.34 = 0.03603$

$0.07 \times 0.27 \times 8.34 = 0.15$

$0.14 \times 0.27 \times 8.34 = 0.09$

$0.17 \times 0.27 \times 8.34 = 0.13$

0.095

0.10

0.10

December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
Sample Collection and Lab Sheets for required sampling

Sample Date: 3-8-11
Time: 10:45 AM
By: ER

Off Date: 3-8-11
By: 12:30

Total Suspended Solids							
Sample	Dish	mls	Dry	Tare	Sample	Sample	Average
Source	Number	Sample	Grams	Grams	Grams	mg/L	mg/L
H2o plant	4	250	.1087	.1081	.0006	2.4	
H2o plant	7	250	.1106	.1102	.0004	1.6	
H2o plant	13	250	.1092	.1089	.0003	1.2	1.7

Lewiston Water Treatment Plant samples tested for Total Suspended Solids
Analysis performed at Lewiston Wastewater Treatment Plant Laboratory

Signature: [Signature] Date: 3-8-11

Print Name: ED ROBINSON

Comments: _____

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MAR 09 2011
CITY OF LEWISTON
WATER TREATMENT PLANT

December 15, 2011 City of Lewiston WTP NPDES Inspection photos (Jerry Shaffer).
Lab Sheet for monthly TSS samples.